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EXAMINER
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2663	4

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/641,636	LAROIA ET AL.	
	Examiner	Art Unit	
	Derrick W. Ferris	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 August 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 August 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 19, 20, and 25are** rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to **claims 19 and 20**, line 2 the term "said uplink traffic channel resource assignment" lacks proper antecedent basis. Please change to "said uplink traffic channel assignment".

As to **claim 25**, line 5 the term "said receiver" lacks proper antecedent basis.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1, 3, 5, 7, 8-12, 14, 21, 23, 24, 26, 28, 29, 33-35, 37, 39-41, and 45** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,031,832 to *Turina*.

As such to **claim 1**, figure 1 of *Turina* shows at least one mobile in communication with a base station. In particular, the preferred embodiment supports

TDMA (see e.g., column 5, lines 20-25). With respect to the limitation: "a transmitter for transmitting said uplink traffic channel requests in said prescribed portion of said control channel resource to a base station" see e.g., column 6, lines 2-20 of *Turina*. What may be at disagreement is the further limitation "wherein said particular mobile unit and said base station a priori know the location of said prescribed portion of said control channel resource in said control channel, whereby a need to include control header information with said uplink traffic channel is eliminated". However, examiner notes the above-limitation is implicitly taught by the reference. In particular, at issue is what is meant by "control header information". Examiner notes a reasonable but broad interpretation of control header information. In particular, applicant defines control header information as information that indicates "the structure and type" of the control message, see applicant's specification at page 3, lines 21-29. Applicant fails to further clarify the above statement in applicant's specification. In addition, examiner notes this definition is not further recited in the claims. Thus *Turina* teaches that uplink channel reservation requests messages are sent over a PRACH (see column 6, lines 3-20). This PRACH is dedicated since the channel is reserved. *Turina* further discloses that PRACH are dedicated since the random access sub-channel is reserved using the USF (see column 2, lines 11-34). Examiner notes the USF does not indicate the structure or the type of the control message. For example, the type of channel will remain the same regardless of whether the channel is reserved or not. As such, the rest of the limitations are taught with respect to the VIP mobile station.

As to **claim 3**, see e.g., column 6, lines 3-20.

As to **claims 5**, see e.g., figure 3.

As to **claims 7**, see e.g., figure 3.

As to **claims 8 and 9**, see e.g., column 6, lines 3-20.

As to **claims 10 and 11**, see e.g., column 6, lines 3-20.

As to **claim 12**, see similar rejection for claim 1. Examiner notes the further limitations of eliminating the need to include control header information and that the control channel is dedicated exclusively to a particular mobile are not recited in the claim.

As to **claim 14**, see e.g., column 6, lines 3-20.

As to **claim 21**, see combined rejections of claims 1 and 12.

As to **claim 23**, see similar rejection to claim 1.

As to **claim 24**, see similar rejection to claim 3.

As to **claim 26**, see similar rejection to claim 5.

As to **claim 28**, see similar rejection to claim 12.

As to **claim 29**, see similar rejection to claim 14.

As to **claim 33**, see similar rejection to claim 1.

As to **claim 34**, see similar rejection to claim 2.

As to **claim 35**, see similar rejection to claim 3.

As to **claim 37**, see similar rejection to claim 5.

As to **claim 39**, see similar rejection to claim 12.

As to **claim 40**, see similar rejection to claim 13.

As to **claim 41**, see similar rejection to claim 14.

As to **claim 45**, see combined rejections for claims 1 and 2.

5. **Claims 1, 3-7, 9, 11-12, 14-16, 17, 18, 20-21, 23-33, 35, 39, and 41-45** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,424,645 B1 to *Kawabata et al.* ("*Kawabata*").

As to **claims 1, 23, and 33**, *Kawabata* shows at least one mobile in communication with a base station in figure 1. In particular, the preferred embodiment supports TDMA (see e.g., abstract). With respect to the limitation: "a transmitter for transmitting said uplink traffic channel requests in said prescribed portion of said control channel resource to a base station" see e.g., figure 1. What may be at disagreement is the further limitation "wherein said particular mobile unit and said base station a priori know the location of said prescribed portion of said control channel resource in said control channel, whereby a need to include control header information with said uplink traffic channel is eliminated". However, examiner notes the above-limitation is implicitly taught by the reference. In particular, at issue is what is meant by "control header information". Examiner notes a reasonable but broad interpretation of control header information. In particular, applicant defines control header information as information that indicates "the structure and type" of the control message, see applicant's specification at page 3, lines 21-29. Applicant fails to further clarify the above statement in applicant's specification. In addition, examiner notes this definition is not further recited in the claims. Thus *Kawabata* teaches that uplink channel reservation requests messages are sent over control channels, these control channels support at least one mobile station, see e.g., column 6. The key difference for this rejection is that control

channels dedicated exclusively to a particular mobile unit are taught with respect to time. In particular, see e.g., column 6, lines 45-49. Thus each of these channels are independent using a reasonable but broad interpretation of the claims. Furthermore, the location is know since the information is transmitted over a predetermined set of frames, see e.g., figure 3. As the information is sent multiple times, there is no need to include control header information with said uplink traffic channel requests.

As to **claims 3, 24, and 35**, see e.g., frames 5 and 6 in figure 1 and column 7, lines 3-18.

As to **claims 4-7, 11, 25-27, and 36-38**, see e.g., frames 5 and 6 in figure 1.

As to **claim 9**, see e.g., column 6, lines 35-38.

As to **claims 12, 28, and 39**, see e.g., the base station in the rejection mentioned for claim 1.

As to **claims 14, 29, and 41**, see e.g., column 7, lines 3-8.

As to **claims 15, 30, and 42**, see e.g., column 6, lines 35-51.

As to **claims 16, 18, 31, 32, 43, and 44**, see e.g., frame 4 in figure 1 and column 6, lines 52-67 and column 7, lines 1-8.

As to **claim 17**, see e.g., column 6, lines 53-67 and column 7, lines 1-2.

As to **claim 20**, see e.g., column 6, lines 64-66.

As to **claims 21 and 45**, see combined rejection for claims 1 and 12.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 2, 13, 22, 34, 40, and 46** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,031,832 to *Turina* in view of "An Overview of Air Interface Multiple Access for IMT-2000/UMTS" to *Ojanpera et al.* ("*Ojanpera*").

As to **claims 2, 13, 22, 34, 40, and 46**, *Turina* is silent or deficient to specifically mentioning OFDM. In particular, *Turina* discloses that any communications medium can be applied, see e.g., column 5, lines 29-32. *Ojanpera* further teaches OFDM, see e.g., pages 94-95. Examiner proposes to modify *Turina* to further clarify that OFDM is used. Thus examiner notes that it would have been obvious to one skilled in the art prior to include the use OFDM. One skilled in the art would have been motivated to use OFDM as part of a HIPERLAN. In particular, *Ojanpera* discloses such motivation at page 94, left-hand column. Furthermore, the *Ojanpera* reference teaches adapting OFDM for a time domain.

8. **Claims 4, 6, 15-17, 18, 19-20, 25, 27, 30-32, 36, 38 and 42-44** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,031,832 to *Turina* in view of U.S. Patent No. 6,430417 B1 to *Raith et al.* ("*Raith*").

As to **claims 4**, *Turina* may be silent or deficient to persistence. However, examiner notes that persistence may be taught as part of figure 3. *Raith* further teaches persistence, see e.g., figure 6a step with respect to steps 606 and 607. Examiner proposes

to modify *Turina* to further clarify persistence. Thus examiner notes that it would have been obvious to one skilled in the art prior to include persistence. One skilled in the art would have been motivated to include persistence to help eliminate interference, errors or long bursts. In particular, *Raith* discloses such motivation at column 8, lines 40-51 and column 14, lines 50-67.

As to **claim 6**, see figure 6a of *Raith*.

As to **claim 15**, see similar rejection to claim 4.

As to **claim 16**, see figure 6a of *Raith*.

As to **claim 17**, see column 6, lines 3-20 of *Turina*.

As to **claim 18**, see column 6, lines 3-20 of *Turina*.

As to **claims 19-20**, see column 6, lines 3-20 of *Turina*.

As to **claim 25**, see similar rejection to claim 4.

As to **claim 27**, see similar rejection to claim 6.

As to **claim 30**, see similar rejection to claim 15.

As to **claim 31**, see similar rejection to claim 16.

As to **claim 32**, see similar rejection to claim 18.

As to **claim 36**, see similar rejection to claim 4.

As to **claim 38**, see similar rejection to claim 6.

As to **claim 42**, see similar rejection to claim 15.

As to **claim 43**, see similar rejection to claim 16.

As to **claim 44**, see similar rejection to claim 18.

9. **Claims 2, 13, 22, 34, 40, and 46** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,424,645 B1 to *Kawabata et al.* ("*Kawabata*") in view of "An Overview of Air Interface Multiple Access for IMT-2000/UMTS" to *Ojanpera et al.* ("*Ojanpera*").

As to **claims 2, 13, 22, 34, 40, and 46**, *Kawabata* is silent or deficient to specifically mentioning OFDM. In particular, see *Kawabata* column 1, lines 8-15. *Ojanpera* further teaches OFDM, see e.g., pages 94-95. Examiner proposes to modify *Kawabata* to further clarify that OFDM is used. Thus examiner notes that it would have been obvious to one skilled in the art prior to include the use OFDM. One skilled in the art would have been motivated to use OFDM as part of a HIPERLAN. In particular, *Ojanpera* discloses such motivation at page 94, left-hand column. Furthermore, the *Ojanpera* reference teaches adapting OFDM for a time domain.

10. **Claims 8, 10 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,424,645 B1 to *Kawabata et al.* ("*Kawabata*") in view of U.S. Patent No. 6,295,453 B1 to *Desgagne et al.* ("*Desgagne*").

As to **claims 8, 10 and 19**, *Kawabata* is silent or deficient to specifically mentioning priority and rate. *Desgagne* further teaches priority and rate, column 9, lines 54-65. Examiner proposes to modify *Kawabata* to further teach wherein said uplink traffic channel request includes a request for a traffic channel in terms of a rate of transmission of data and wherein said uplink data includes priority information regarding said mobile unit. Thus examiner notes that it would have been obvious to one skilled in the art prior to wherein said uplink traffic channel request includes a request for a traffic

channel in terms of a rate of transmission of data and wherein said uplink data includes priority information regarding said mobile unit. One skilled in the art would have been motivated to ensure quality of service for voice communications as well as provide increased capacity for data messages. In particular, *Desgagne* discloses such motivation at column 9, lines 54-65.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US006707808B1 discloses using a dedicate control channel, see e.g., the third embodiment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derrick W. Ferris
Examiner
Art Unit 2663

DWF

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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 8/29/04